

## Patent Claims

1. A bus module for connecting an automation unit to a backplane bus which can be used to transport data and/or power, with said bus module having
  - at least one bus connecting device (BL2) for connection to the backplane bus and
  - at least one unit connecting device (AL2, BA2,  $\mu$ C2, OE1) - including a serial optical interface ( $\mu$ C2, OE1) - for connection to the automation unit,characterized in that
  - the unit connecting device (AL2, BA2,  $\mu$ C2, OE1) has a coupling element (BA2) which can be used to set up a point-to-point communication link to the automation unit.
2. The bus module as claimed in claim 1, in which the coupling element (BA2) has a bus ASIC.
3. The bus module as claimed in claim 1 or 2, in which the unit connecting device (AL2, BA2,  $\mu$ C2, OE1) has a microcontroller ( $\mu$ C2) which is connected to the coupling element (BA2) and drives the serial optical interface ( $\mu$ C2, OE1).
4. The bus module as claimed in one of the preceding claims, in which the serial optical interface ( $\mu$ C2, OE1) comprises a UART interface.
5. The bus module as claimed in claim 4, in which the UART interface is integrated in the coupling element (BA2).
6. The bus module as claimed in one of the preceding claims, in which the optical interface ( $\mu$ C2, OE1) enables half-duplex or full-duplex operation.

7. A load feeder apparatus which is intended to be coupled to a backplane bus and has
  - an interface (OE2,  $\mu$ C3) for communicating with a bus module (RM2),characterized in that
  - the interface (OE2,  $\mu$ C3) is a serial optical interface.
8. The load feeder apparatus as claimed in claim 7, which has a microcontroller ( $\mu$ C3) that controls the serial optical interface.
9. The load feeder apparatus as claimed in claim 7 or 8, in which the serial optical interface (OE2,  $\mu$ C3) comprises a UART interface.
10. The load feeder apparatus as claimed in one of claims 7 to 9, in which the optical interface (OE2,  $\mu$ C3) enables half-duplex or full-duplex operation.